



Fact sheet E-Glass

In accordance with RoHS guideline 2011/65 EU and Reach regulation EG 1907/2006

Chemical composition:

e-glass is a product made of glass filament. The single glass filaments flow under the effect of gravity through hundreds of nozzle holes. E-glass possesses a high alkalinity. The minimal composition of oxide stays within the percentages as indicated by the producer. E-glass is referred to as alkali-free glass filament.

Mechanical characteristics:

The remarkable characteristics of e-glass becomes evident at a density of 2,6g/cm³ and a diameter of 5-24 µm. Scientific investigations on single elementary fibres have shown a constant tensile strength of 3,4 GPa, a tensile modulus of 70-90 GPa and an elongation at break below 5%.

Thermal characteristics:

The chemical constituents of e-glass guarantee nonflammability. Its softening point is 850°C. These characteristics are not affected by changes in room temperature. The technological characteristics are not affected by low temperatures until -80°C. For a short span of time e-glass can be exposed to high temperatures up to 620°C without losing strength. E-glass can be used in a temperature range in which other types of glass fibre become useless due to thermal behaviour.

Potential hazards: Glass filament with a diameter of more than 3µm are not respirable and don't cause respiratory diseases. But potential hazards include mechanical irritation, inhalable dust formation or – in rare cases – the development of allergies.

The following first-aid measures should be applied:

Breathing difficulties: leaving the actual position.

Irritation of the eye: Rinse out with plenty of water.

Skin irritation: washing the skin with soap and lukewarm water.

Information for doctor: no specific medical measures required.

According to the current transportation requirements e-glass filament products are not considered to be dangerous goods and can be disposed as general industrial waste.

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Fact sheet Glass fabric hoses raw white (untreated)

In accordance with RoHS guideline 2011/65 EU and Reach regulation EG 1907/2006
produced acc. to DIN EN 60684

Application:

In the manufacture of motors and transformers, for the protection of electrically, thermally and mechanically used components and machines, plants and apparatus construction.

As a heat protection or bandage material in windings of electrical machines who are used with high mechanical stress.

Structure:

The glass fabric is made of alkali-free e-glass filament. The textile is braided fully covered on our modern braiding machines in our in-house braiding and has a wall thickness depending on the inner diameter of 0,16 mm to 0,25 mm. Like e-glass it is pure white in the state as delivered.

Characteristics:

No uptake of water
Low elongation
High tensile strength
Not hazardous to health

Delivery:

Glass fabric hoses raw white are available in several thickness and widths from 0,5mm to 120mm. The finished hoses are wound on a cardboard spool in adjusted quantities.

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